

an envelope (9; 9'; 9") substantially completely surrounding each
core, said envelope incorporating at least one compound whose
solubility increases with decreasing concentration of a specific
compound in the medium surrounding the particle,

and

an agent to prevent substantial dissolution of the envelope or substantial
detachment of the envelope from the core (8; 8') or cores (8") at the start of
the clear rinsing cycle.

51. A composition according to claim 50, in which the concentration of the
specific compound in the medium surrounding the particle or particles is, until the
start of the clear rinsing cycle, sufficiently high to prevent substantial dissolution of the
envelope or substantial detachment of the envelope from the core (8; 8') or cores (8").

52. A composition according to claim 51, in which each particle is coated with
a substance which, substantially independently of the concentration of the specific
compound in the surrounding medium, dissolves or separates from the particle during the
main rinsing cycle of the dishwashing machine.

53. A composition according to claim 50, in which the basic composition is in
the form of a tablet (1; 1').

54. A composition according to claim 53, in which the particle or particles are
so placed in or on the tablet that the concentration of the specific compound in the
medium surrounding the particle or particles is sufficiently high so as to prevent
substantial dissolution of the envelope or substantial detachment of the envelope from the
core or cores until the tablet is substantially dissolved.

55. A composition according to claim 54, in which the particle or particles (6) are received in at least one cavity (4, 5) of the tablet (1) completely surrounded by the basic composition (2, 3).

56. A composition according to claim 55, in which each cavity contains one or more particles which, alone or together, have substantially the same volume as the cavity.

57. A composition according to claim 55, in which one or more cavities has a larger volume than the particle or all the particles contained in the particular cavity.

58. A composition according to claim 57, in which the particle or particles are loosely arranged in the interior of the cavity.

59. A composition according to claim 57, in which the particle or particles are fixed in the interior of the cavity.

60. A composition according to claim 59, in which the particle or particles are fixed by an adhesive.

61. A composition according to claim 55, in which the cavity is substantially centrally positioned in the interior of the tablet.

62. A composition according to claim 61, in which the tablet has a single substantially spherical cavity.

63. A composition according to claim 62, in which the cavity contains a single substantially spherical particle whose external diameter is smaller than the internal diameter of the cavity.

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64. A composition according to claim 54, in which the particle or particles (6'; 6'') are received in at least one cavity (5) of the tablet (1'), which is only partly surrounded by the basic composition (2').

65. A composition according to claim 54, in which the particle or particles (6'; 6'') are received in a depression (4') in one of the surfaces (11') of the tablet (1').

66. A composition according to claim 64 or 65, in which the particle or particles are placed in the cavity or depression in such a way that they do not project over the surface or surfaces of the tablet.

67. A composition according to claim 66, in which the cavity or depression contains only a single particle whose volume and shape in the vicinity of the cavity or depression substantially coincide with the volume and shape of the cavity or depression and substantially completely fills said cavity or depression.

68. A composition according to claim 67, in which the cavity or depression has a substantially circular cross-sectional surface parallel to one of the surfaces to which it opens or in which it is located.

69. A composition according to claim 68, in which the cavity or depression is open to the surface only to the extent that the particle or particles received therein cannot pass out of said cavity or depression.

70. A composition according to claim 69, in which the particle or particles are loosely arranged in the cavity or depression.

71. A composition according to claim 69, in which the particle or particles are fixed in the cavity or depression.

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72. A composition according to claim 71, in which the particle or particles are fixed by an adhesive (10').

73. A composition according to claim 50, in which the basic composition (2, 3; 2') incorporates a composition selected from the group consisting of a machine dishwashing agent composition, a water softener composition, a washing intensifier composition, and combinations thereof.

74. A composition according to claim 50, in which the envelope (9; 9'; 9'') incorporates at least one compound which (a), at the concentration of the specific compound at the end of the main cleaning cycle of the dishwashing machine, is insoluble or is only slightly soluble and (b), at the concentration of the specific compound in the clear rinsing cycle, has an adequate solubility to ensure that it is so significantly dissolved or detached from the core or cores that a complete or partial escape of the core material into the medium of the clear rinsing cycle is possible.

75. A composition according to claim 74, in which the solubility of the compound increases with decreasing OH⁻ ionic concentration in the surrounding medium.

76. A composition according to claim 75 which, at a pH-value above 10, the compound has no or only a limited solubility and, at a pH-value below 9, an adequate solubility to ensure that, in the clear rinsing cycle it is so significantly dissolved or detached from the core or cores that a complete or partial escape of the core material into the medium of the clear rinsing cycle is possible.

77. A composition according to claim 75, in which the compound comprises a polymer.

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78. A composition according to claim 77, in which the compound comprises a pH-sensitive polymer incorporating at least one repeat unit having at least one basic function which does not form part of the polymer backbone chain.

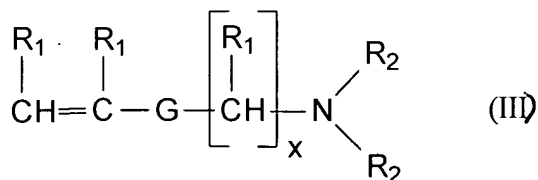
79. A composition according to claim 78, in which the repeat unit is based on a compound selected from the group consisting of vinyl alcohol derivatives, acrylates and alkyl acrylates having said basic function.

80. A composition according to claim 78, in which the polymer is a carbohydrate functionalized with said basic function.

81. A composition according to claim 78, in which the basic function is an amine.

82. A composition according to claim 81, in which the amine is a secondary or tertiary amine.

83. A composition according to claim 81, in which the repeat unit is based on a compound of formula III:



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in which

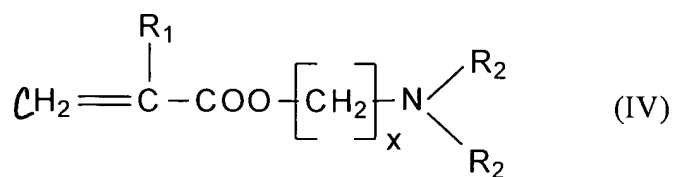
G is a linking group selected from $-COO-$, $-OCO-$, $-CONH-$, $-NHCO-$, $-NHCONH-$, $-NHCOO-$, $-OCONH-$ or $-OCOO-$,

each R_1 is hydrogen or an alkyl group with 1 to 3 carbon atoms,

10 each R₂ is hydrogen or an alkyl group with 1 to 5 carbon atoms, and

x is an integer from 1 to 6.

84. A composition according to claim 83, in which the repeat unit is based on a compound of formula IV:



in which

R₁ is hydrogen or an alkyl group with 1 to 3 carbon atoms,

each R₂ is hydrogen or an alkyl group with 1 to 5 carbon atoms, and

x is an integer from 1 to 6.

85. A composition according to claim 78, in which the basic function is an imine.

86. A composition according to claim 78, in which the basic function is a basic aromatic N-containing group.

87. A composition according to claim 86, in which the basic function is a pyridine group.

88. A composition according to claim 86, in which the basic function is an imidazole group.

89. A composition according to claim 80, in which the polymer is derived from chitosan.

90. A composition according to claim 75, in which the composition incorporates κ -carrageenan.

91. A composition according to claim 50, in which the core or cores incorporate a material selected from the group consisting of surfactants, antibacterial compositions, silver protection agents, fragrances, bleaches, disinfectants, odour masking agents, anti-coating agents, enzymes, and combinations thereof.

92. A composition according to claim 91, in which the core (8; 8') or at least part of the cores (8'') is in the form of an encapsulated liquid.

93. A composition according to claim 92, in which the encapsulated liquid is contained in a gelatin capsule.

94. A composition according to claim 91, in which the core (8; 8') or at least a part of the cores (8'') is in solid form.

95. A composition according to claim 50, in which the core (8; 8') or at least a part of the cores (8'') has a melting point higher than 35°C.

96. A composition according to claim 95, in which the core or at least a part of the cores has a melting point between 55° and 70°C.

97. A process for washing dishes in a dishwashing machine, which comprises introducing into said dishwashing machine a composition comprising

a basic composition (2; 3; 2') which essentially deploys its function in the main cleaning cycle of the dishwashing machine,

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5 at least one particle (6; 6'; 6") having

at least one core (8; 8'; 8") incorporating at least one substance
essentially deploying its function in the clear rinsing cycle of the
dishwashing machine, and

an envelope (9; 9'; 9") substantially completely surrounding each
core, said envelope incorporating at least one compound whose
solubility increases with decreasing concentration of a specific
compound in the medium surrounding the particle,

and

an agent to prevent substantial dissolution of the envelope or substantial
detachment of the envelope from the core (8; 8') or cores (8") at the start of
the clear rinsing cycle.

98. A process according to claim 97, which comprises the additional step of
introducing into said dishwashing machine an additional dishwashing agent.

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